AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1: (Currently amended) A method for determining agonist-activity to a cytokinin receptor, comprising:

(1) bringing an examinee substance into contact with a cell transformed with DNA comprising a cytokinin receptor gene, wherein the transformed cell expresses said cytokinin receptor from said DNA;

(2) determining~~measuring~~ an existence or level~~quantity~~ of intracellular signal transduction from said cytokinin receptor~~, thereby determining a level of intracellular signal transduction from said cytokinin receptor~~; and

(3) comparing the existence or level determined~~obtained~~ in (2) with a second existence or level ~~determined by measuring an existence or quantity~~ of intracellular signal transduction from said cytokinin receptor determined in the absence of said examinee substance.

Claim 2: (Currently amended) The method according to claim 1, wherein growth of said transformed cell is controlled by intracellular signal transduction from said cytokinin receptor, and wherein said existence or level and said second existence or level of intracellular signal transduction from said cytokinin receptor are determined by measuring growth of said transformed cell.

Claim 3: (Currently amended) The method according to claim 1, wherein said transformed cell is generated from a host cell, wherein said host cell is improved so as to have a lower histidine kinase activity lower than before the improvement~~having a lowered intrinsic histidine kinase activity~~.

Claim 4: (Currently amended) The method according to claim 1, wherein said transformed cell is generated from a host cell having a lowered ~~intrinsic~~ histidine kinase activity, wherein said ~~intrinsic~~ histidine kinase activity was lowered by a defect in one or more histidine kinase genes.

Claim 5: (Previously presented) The method according to claim 1, wherein said transformed cell is generated from a host cell having no cytokinin receptor.

Claim 6: (Previously presented) The method according to claim 1, wherein said transformed cell is yeast.

Claim 7: (Previously presented) The method according to claim 1, wherein said transformed cell is budding yeast.

Claim 8: (Currently amended) The method according to claim 1, wherein said cytokinin receptor is selected from the group consisting of:

(a) a cytokinin receptor having the amino acid sequence represented by SEQ ID No: 6;

(b) a cytokinin receptor having the amino acid sequence represented by SEQ ID No: 2;

(c) a cytokinin receptor having the amino acid sequence represented by SEQ ID No: 4;

(d) a ~~partially transmembrane region-deleted type~~ cytokinin receptor[[.]] having at least one transmembrane region but fewer transmembrane regions than wild-type cytokinin receptor;

(e) a cytokinin receptor having the amino acid sequence represented by amino acids 196 to 1176 of SEQ ID No: 2;

(f) a cytokinin receptor having the amino acid sequence represented by amino acids 50 to 1176 of SEQ ID No: 2;

(g) a cytokinin receptor having the amino acid sequence represented by amino acids 32 to 1036 of SEQ ID No: 4;

(h) a chimera-type cytokinin receptor comprising ~~heterogeneous receiver regions for a histidine kinase~~extracellular regions, transmembrane regions and histidine kinase regions, all of which are derived from the same cytokinin receptor, and receiver regions which are not derived from said same cytokinin receptor; and

(i) a cytokinin receptor having the amino acid sequence of (a), (b), (c), (e), (f), or (g) with deletion, substitution, or addition of one or a plurality of amino acids, wherein said cytokinin receptor is encoded by a polynucleotide that hybridizes under stringent conditions to a polynucleotide represented by the nucleotide sequence selected from the group consisting of

SEQ ID NOS:1, 3, and 5, and wherein said stringent conditions comprise hybridization at 6 X SSC at 65 °C and washing in the presence of 0.1 X SSC and 0.5% SDS at 68 °C for 30 minutes.

Claims 9-19: (Canceled)

Claim 20: (Currently amended) A method for determining~~detecting~~ agonist-activity to a cytokinin receptor, comprising:

(1) bringing an examinee substance into contact with a cell transformed with DNA comprising a cytokinin receptor gene, and wherein the transformed cell expresses said cytokinin receptor from said DNA;

(2) determining~~measuring~~ an existence or level~~quantity~~ of intracellular signal transduction from said cytokinin receptor~~, thereby determining a level of intracellular signal transduction from said cytokinin receptor~~; and

(3) comparing the existence or level determined~~obtained~~ in (2) with a second existence or level ~~determined by measuring an existence or quantity~~ of intracellular signal transduction from said cytokinin receptor determined in the absence of said examinee substance but in presence of another substance.

Claim 21: (Previously presented) The method according to claim 20, wherein another substance is a substance having no agonist-activity to said cytokinin receptor.

Claims 22-27: (Canceled)

Claim 28: (Currently amended) The method according to claim 1, wherein said gene hybridizes under stringent conditions to a polynucleotide represented by the nucleotide sequence selected from the group consisting of SEQ ID Nos: 1, 3, and 5, wherein said stringent conditions comprise hybridization at 6 X SCC at 65 °C and washing in the presence of 0.1 X SSC and 0.5% SDS at 68°C for 30 minutes, and wherein said gene encodes a protein having cytokinin receptor activity.

Claim 29: (Canceled)